

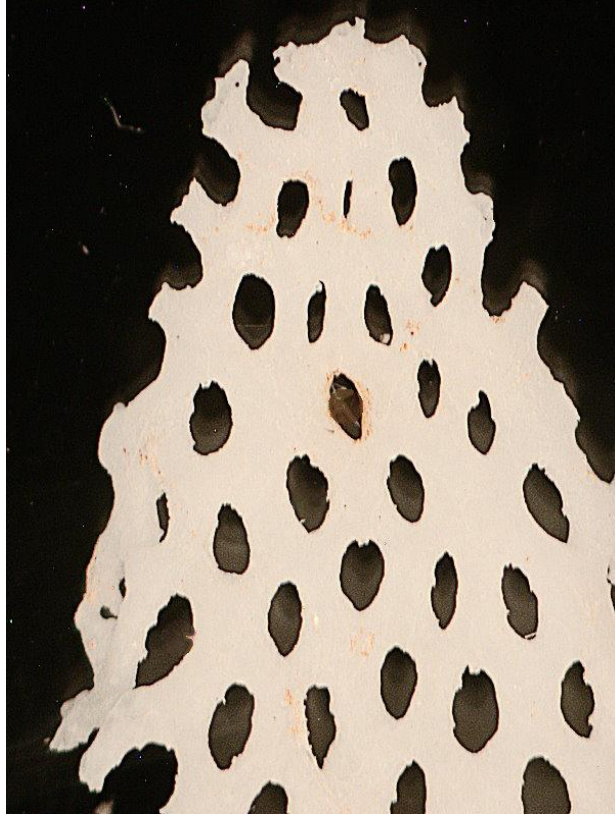
## **A First Venture into Photomicrography**

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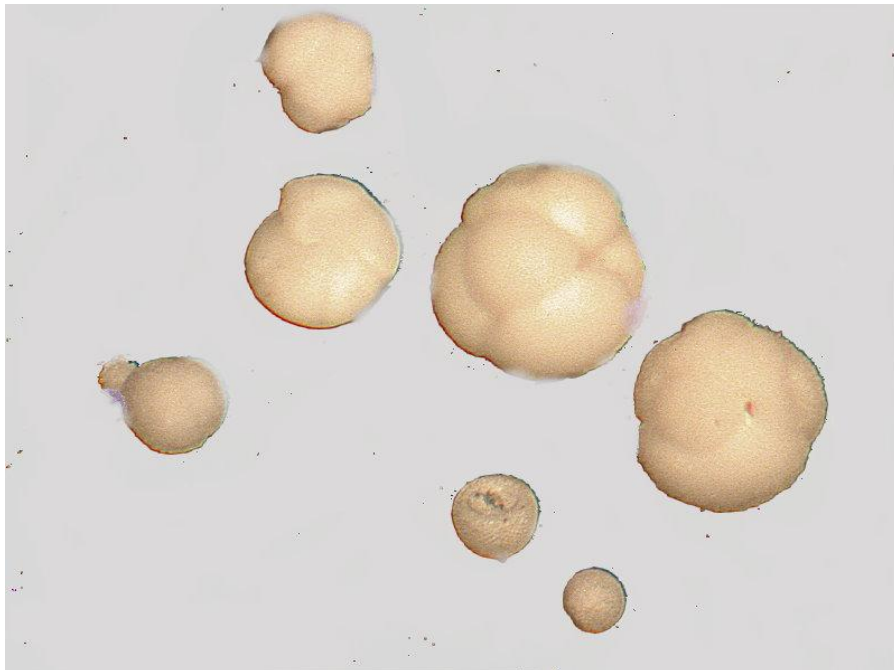
Microscopes have always been a great interest of mine. In my highschool biology classes, they were always a complex piece of machinery we rarely used, and when we did, we only looked at simple specimens, like onion and potato cross sections. These were still fascinating to look at, but we always wanted to see more and more.

I have since been able to use microscopes every week, thanks to Dr. Richard Howey, whom I work for as a lab assistant. He has provided me with various microscopes, and taught me how to use each one to take wonderful pictures of all sorts of specimens. Using a stereo microscope, I have taken quite a few images and had help in editing them to make some beautiful pictures.

This picture is of a sea urchin spicule. A spicule is a calcareous skeletal structure from invertebrates such as sponges or, in this case, an urchin. For this one I wanted to do a dark background to showcase the unique shape this specimen has. I also like the contrast between the colors in it, which help to draw your eyes immediately on this beautiful specimen.



Similarly with this image, the colors help to showcase the unique shape and texture of the specimen. These are forams, microscopic organisms with hard shell structures, and to me they look like pieces of popcorn.



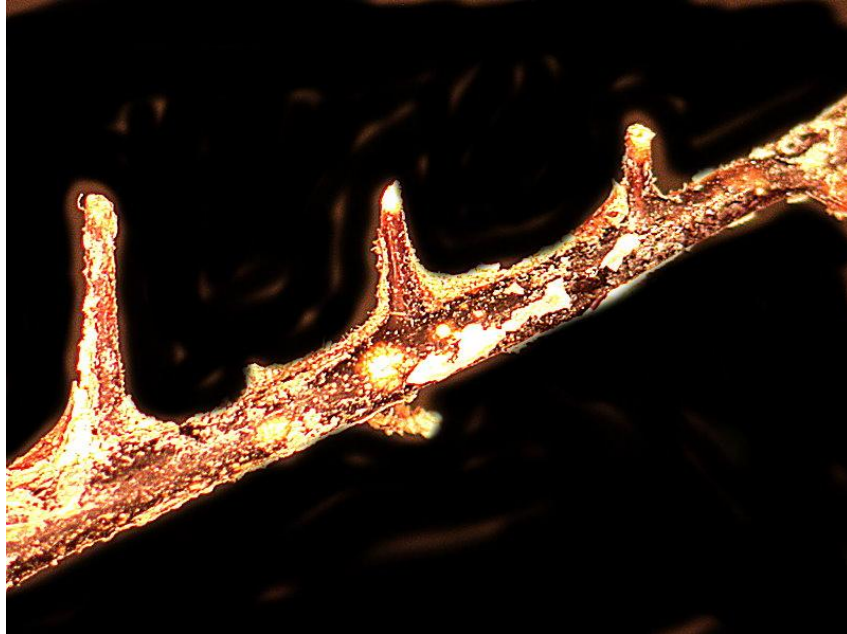
These are more spicules, but this time from coral. The orange color in them is from the color of the light the microscope used to illuminate them. We filled the background with an off-white color, and these spots of orange remained, but I think they look better this way.



This image is an *Elodea* (a common aquatic plant) stem cross-section. The various tendril-like structures make it look like a jellyfish or alien creature. The color also makes the details within it pop out more.



This image is a piece of an underwater plant, which had small spots of sponge growing off of it. Getting this one in focus was much tougher than any of my other images, due to the large size of the plant.

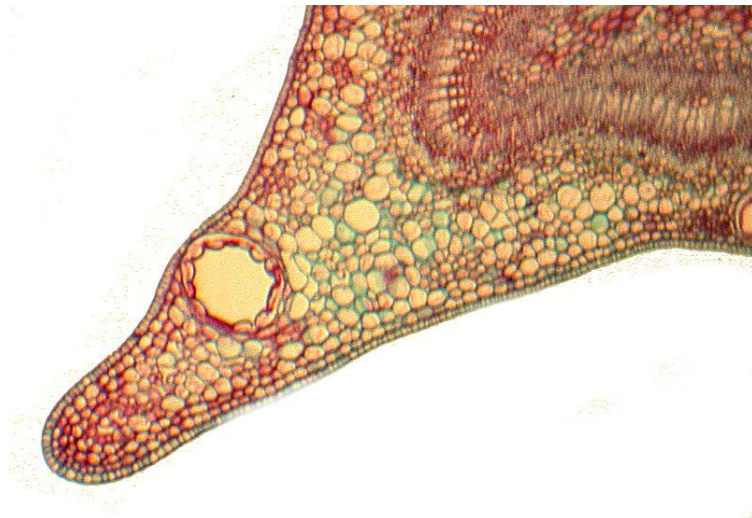


These two pictures are of lackey moth eggs, from a prepared 19th century slide. I like this one, as the structure and color of each one looks a bit like pearls.





This eucalyptus stem cross-section is another good specimen. The stain and the white background bring out the detail in each cell, showing the complex structure of this plant.



This image has to be my favorite one out of all the ones I have taken so far. While editing this one, we experimented with some color settings, and one of them turned the

background to this bright cyan color. This caught my eye immediately. The contrasting colors help to show the hairs and exoskeleton of a Merry Dancer fly, and the colors also fit well enough together that they don't give you a headache while looking at it, but are rather pleasing to view.



Throughout my time so far of looking at different insects, plants, cross sections, and objects under the microscope, I have learned so much about the different techniques and functions of each microscope. Practice makes perfect, so I will continue to work on both the image taking and the editing, so that eventually I can make more interesting images that show more fascinating specimens in all their glory.

Comments to the author welcomed, via Richard Howey, tunicate AT wyoming DOT com.

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